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October 9, 2001

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By Messenger

Magalie Roman Salas, Secretary
Federal Communications Commission
445 12th Street, S.W., TW-A325
Washington, D.C. 20554

Re: **San Mateo County Community College District**
Amendment of Section 73.622(b), Table of Allotments, Digital Television Broadcast Stations
San Mateo, California
Petition for Rulemaking

Dear Ms. Salas:

On behalf of San Mateo County Community College District (the "District"), we are hereby enclosing the above-referenced Petition for Rulemaking to amend Section 73.622(b) of the Commission's rules.

Please date-stamp the enclosed copy marked "Return Copy" and return it to us in the self-addressed stamped envelope provided for that purpose. Please direct any questions regarding this filing to undersigned counsel for the District.

Yours truly,

Margaret L. Tobey

Margaret L. Tobey

dc-282412

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
	)	MM Docket No. _____
Amendment of Section 73.622(b),	)	RM-_____
Table of Allotments,	)	
Digital Television Broadcast Stations,	)	
(San Mateo, California)	)	

PETITION FOR RULEMAKING

San Mateo County Community College District (the "District"), by its attorneys and pursuant to Sections 1.401 *et seq.*, 1.420, and 73.623 of the Rules and Regulations of the Federal Communications Commission ("FCC" or "Commission"), 47 C.F.R. §§ 1.401 *et seq.*, 1.420, and 73.623 (2000), hereby petitions the Commission to amend the Digital Television Table of Allotments, 47 C.F.R. § 73.622(b), as follows:

		Channel No.
City	**Present**	**Proposed**
San Mateo, California	59	43

The facts in support of this Petition are set forth below.

1. The District is the licensee of noncommercial educational Station KCSM-TV, Channel 60, San Mateo, California (the "Station"), which is operated by the College of San Mateo, one of three colleges operated by the District in the San Francisco Bay Area. The Station is a member of the Public Broadcasting System. Like other non-commercial licensees, the District faces very substantial capital expenditures in the

transition to digital television and it is seeking to make the transition in the most cost-effective way possible. Accordingly, the assignment of its digital channel is a matter of great importance to the District.

2. The Commission's DTV Table of Allotments currently assigns DTV Channel 59 to the District. By this Petition, the District respectfully requests the Commission to amend the DTV Table of Allotments by substituting DTV Channel 43 for the District's current DTV channel allotment of Channel 59. As explained in the attached Engineering Exhibit of Hammett & Edison, Inc. ("Engineering Exhibit"), DTV Channel 43 can be substituted for DTV Channel 59 in full compliance with the FCC's rules and policies.

3. The proposed substitution will serve the public interest in a variety of ways. First, the substitution will allow the District to avoid the very substantial and ultimately unrecoverable capital expenditure required to construct an out-of-core digital facility that will be used temporarily until the end of the DTV transition period. Because the Station's analog channel is also out-of-core, the District will be faced with finding an in-core DTV channel and bearing the expense of building a second DTV facility at the end of the transition period. Substitution of an in-core DTV allotment for the existing out-of-core allotment will save the District the substantial and unrecoverable expense of building a second, in-core DTV facility at the end of the transition period while also resolving now the issue of which in-core DTV channel will ultimately be assigned to the Station. The efficiencies, cost-savings and certainty afforded by this proposal are

especially important for a noncommercial licensee such as the District, as the Commission has recognized in analogous cases.[1]

4. Second, as demonstrated in the attached Engineering Exhibit, the substitution of DTV Channel 43 for DTV Channel 59 at San Mateo would maximize efficient use of the radiofrequency spectrum because DTV Channel 43 would completely encompass the City of San Mateo with a F(50,90) 48.4 dBu City-Grade contour and would serve a terrain-limited interference-free population of 5,438,371 persons. Thus, the Petition fully complies with the principal community coverage requirements of Section 73.625(a).

5. Finally, the substitution of DTV Channel 43 will not cause harmful interference to nearby Station KBHK-TV, NTSC Channel 44 in San Francisco and would cause only permitted *de minimis* interference to the Station KHSL-DT Channel 43 allotment at Chico, California.[2] The proposed substitution would not cause any interference to any Class A television stations.

CONCLUSION

Because DTV Channel 43 can be substituted for DTV Channel 59 at San Mateo, California, in full compliance with the Commission's rules, the District respectfully

---

[1] *See Amendment of Section 73.622(b), Table of Allotments, Digital Television Broadcast Stations. (Evansville, Indiana)*, Report and Order, 16 FCC Rcd 2281 (2001) (permitting the substitution of an in-core DTV channel for an out-of-core DTV channel since it would allow the noncommercial licensee to "preserve its limited resources"); *see also Advanced Television Systems and Their Impact Upon the Existing Television Broadcast Service*, Memorandum Opinion and Order on Reconsideration of the Sixth Report and Order, 13 FCC Rcd 7418 (1998) (stating that the FCC "recognize[s] the additional burden placed on licensees with out-of-core DTV allotments" and agreeing that "the allotment of out-of-core channels may present a particular burden to noncommercial public television licensees because of their reliance on federal, state, and private contributions to raise funds").

[2] As shown by the attached OET-69 interference study, KCSM-DT operating on DTV Channel 43 would cause a *de minimis* 1.8 percent increase in interference to the KHSL-DT, D43, Chico, California, allotment. Moreover, there would be *no* increase in interference to the KHSL-DT facilities actually authorized in the station's outstanding construction permit.

requests the Commission to adopt expeditiously a Notice of Proposed Rule Making to amend the Digital Television Table of Allotments as set forth herein.

Respectfully submitted,

SAN MATEO COMMUNITY COLLEGE DISTRICT

By: Margaret L. Tobey

Margaret L. Tobey
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2000 Pennsylvania Avenue, N.W.
Suite 5500
Washington, D.C. 20006
202-887-1500

Its Attorneys

October 9, 2001

Station KCSM-DT
San Mateo, California

Engineering Exhibit in Support of Petition for Rulemaking to Change from DTV Channel 59 to DTV Channel 43

September 20, 2001

HAMMETT & EDISON, INC.
CONSULTING ENGINEERS
SAN FRANCISCO

Statement of Hammett & Edison, Inc., Consulting Engineers

The firm of Hammett & Edison, Inc., Consulting Engineers, has been retained on behalf of the San Mateo Community College District, licensee of Noncommercial Station KCSM-TV, NTSC Channel 60 and DTV Channel 59, San Mateo, California, to prepare an engineering exhibit in support of a petition for rulemaking to amend the DTV Table of Allotments to substitute DTV Channel 43 for DTV Channel 59 at San Mateo, California.

Background Information

In the Sixth Report and Order to MM Docket 87-268, Station KCSM-DT was assigned out-of-core DTV Channel 59; since the San Mateo Community College District ("District") analog channel is also out-of-core, this means that the District is faced with finding an in-core DTV channel and building a second DTV facility at the end of the transition period. Accordingly, engineering studies have been undertaken to see if an in-core DTV channel might be available now. As will be demonstrated by the remainder of this engineering exhibit, DTV Channel 43 can be substituted for DTV Channel 59 at San Mateo, California, in full compliance with all FCC rules and policies.

Allocation Conditions

By relocating the proposed KCSM-DT site 8 kilometers to the north, from the KCSM-TV site at San Bruno Mountain to Sutro Tower in San Francisco, at 37° 45' 19.3" N, 122° 27' 06.1", NAD27, so as to be collocated with Station KBHK-TV, NTSC Channel 44, San Francisco, no interference is caused to that station and only permissible "*de minimis*" interference would be caused to other full-service NTSC or DTV allotments, applications, construction permits, or licenses. As shown by the attached Figure 1, giving the results of an OET-69 interference study for KCSM-DT as D43, the maximum increase in interference would be to the KHSL-DT, D43, Chico, California, allotment, which would see a 1.8% increase in interference; however, there would be no increase in interference to the *permitted* KHSL-DT facilities. It should be noted that no protection requirements exist with respect to Station KSBW-DT at Salinas, California, which had been allotted DTV Channel 43 and has since changed its allotment to DTV Channel 10.

The allotment requested for KCSM-DT on DTV Channel 43 calls for a main beam effective radiated power ("ERP") of 1,000 kW using the directional antenna pattern shown in the attached Figure 2, with a center-of-radiation height of 223.1 meters AGL, 477.3 meters AMSL, and 444.4 meters HAAT. This is the Dielectric Type TUP-C3-8-1 panel antenna azimuth pattern for Station KBHK-DT, D45, San Francisco, one of the ten Sutro Tower DTV stations operating or scheduled to

operate into the 32-bay Dielectric antenna now installed on the Sutro Tower (actually, four stacked downward antennas, each using 8 bays).

While the requested main beam power of 1,000 kW exceeds the 683 kW ERP that would normally be the maximum for a 444.4-meter effective height UHF DTV station, three stations on Sutro Tower received class-maximum allotments of 1,000 kW with greater effective heights than now being requested for KCSM-DT as Channel D43: KPIX-DT, Channel D29, San Francisco (1,000 kW at 506 meters HAAT); KTVU-DT, Channel D56, Oakland (1,000 kW at 479 meters HAAT); and KRON-DT, Channel D57, San Francisco (1,000 kW at 446 meters HAAT). Therefore, pursuant to Section 73.622(f)(5) of the FCC Rules, the requested ERP is permissible.

Frequency Offset to Protect KTNC-TV, N42

The proposed KCSM-DT on Channel D43 would be within 88 kilometers of Station KTNC-TV, Channel N42, at Concord, California. Therefore, pursuant to Section 73.622(g)(1) of the FCC Rules, the requested D43 allotment should have a "c" designator indicating that the DTV Channel 43 pilot must be maintained 5.082138 MHz ±3 Hz above the KTNC-TV visual carrier.

No Impact to Class A TV Stations

The proposed facilities for KCSM-DT on Channel D43 are not predicted to cause interference to any other Class A TV station, including:

The licensed facilities of Class A-eligible Station KBIT-LP, NTSC Channel N28, San Francisco, and the pending KBIT-LP application to increase power from 19.0 kW (DA) to 62.0 kW (DA).

The licensed facilities of Class A-eligible Station KDTV-LP, Channel N28, Santa Rosa, and the permitted KDTV-LP facilities, which authorize increasing the station's ERP from 0.64 kW to 8.20 kW.

The licensed facilities of Class A-eligible Station K47DQ, Channel N47, Sacramento.

No Canadian or Mexican Approvals Required

The proposed site is 1,167 kilometers from the Canadian border and 755 kilometers from the Mexican border. Therefore, no Canadian nor Mexican notifications or approvals are required.

Baseline Area and Population

As shown by the attached Figure 3, an OET-69 coverage study for KCSM-DT on Channel D43 at 1,000 kW (DA) and 444.4 meters HAAT on Sutro Tower, such facilities would provide a terrain-

limited, interference-free land area and population of 12,715 square kilometers and 5,438,571 persons (intentionally still referencing the 1990 U.S. Census). It should be noted that the F(50,90) 48.4 dBu City Grade contour would easily encompass all of the City of San Mateo.

Summary

The DTV Table of Allotments can be modified to substitute DTV Channel 43 for DTV Channel 59 at San Mateo, California, in compliance with all FCC Rules and policies. Substitution of an in-core DTV allotment for the existing out-of-core allotment would save the San Mateo Community College District the expense of building a second, in-core DTV facility at the end of the transition period, while also resolving now the issue of what in-core DTV channel KCSM-DT will receive.

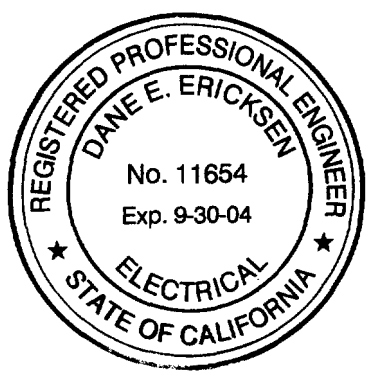
List of Figures

In carrying out these engineering studies, the following attached figures were prepared under my direct supervision:

1. OET-69 interference study for KCSM-DT on D43
2. Proposed directional antenna pattern
3. OET-69 interference study for KCSM-DT on D43.

Dane E. Ericksen, P.E.

September 20, 2001



Affidavit

State of California
County of Sonoma | ss:

Dane E. Ericksen, being first duly sworn upon oath, deposes and says:

1. That he is a qualified Registered Professional Engineer, holds California Registration No. E-11654, which expires on September 30, 2004, and is employed by the firm of Hammett & Edison, Inc., Consulting Engineers, with offices located near the city of San Francisco, California,

2. That he graduated from California State University, Chico, in 1970, with a Bachelor of Science Degree in Electrical Engineering, was an employee of the Field Operations Bureau of the Federal Communications Commission from 1970 to 1982, with specialization in the areas of FM and television broadcast stations and cable television systems, and has been associated with the firm of Hammett & Edison, Inc., since October 1982,

3. That the firm of Hammett & Edison, Inc., Consulting Engineers, has been retained on behalf of the San Mateo Community College District, licensee of Noncommercial Station KCSM-TV, NTSC Channel 60 and DTV Channel 59, San Mateo, California, to prepare an engineering exhibit in support of a petition for rulemaking to amend the DTV Table of Allotments to substitute DTV Channel 43 for DTV Channel 59 at San Mateo, California,

4. That such engineering work has been carried out by him or under his direction and that the results thereof are attached hereto and form a part of this affidavit, and

5. That the foregoing statement and the report regarding the aforementioned engineering work are true and correct of his own knowledge except such statements made therein on information and belief and, as to such statements, he believes them to be true.

Dane E. Ericksen, P.E.

Subscribed and sworn to before me this 20th day of September, 2001

AMY L. MILLER
Commission # 1197811
Notary Public - California
Sonoma County
My Comm. Expires Oct 4, 2002

OET-69 Interference Study for KCSM-DT as D43

Interference analysis
tvixstudy 2.3.11

This interference study is based on 1.00 x 1.00 kilometer cells and terrain profiles with 1.0 points per kilometer. FCC processing using these finer-resolution parameters is hereby requested, pursuant to the Commission's August 10, 1998, Public Notice, "Additional Applications Processing Guidelines for DTV."

Before case parameters:
(same as "Original" below)

After case parameters:

	--Modified--	--Original--
Station:	D43 KCSMDT allot	D59 KCSMDT allot
City:	SAN MATEO, CA	SAN MATEO, CA
Coordinates:	N 37-45-19.3	N 37-41-07.0
	W 122-27-06.1	W 122-26-01.0
Height AMSL:	477.3 m	423.0 m
Maximum ERP:	1000 kW	107 kW
Azimuth pattern:	kbhkD45az.pat	DTV0205 (replication)
Orientation:	0.0	0.0
Elevation pattern:	OET-69 generic	OET-69 generic
Service level:	41.4 dBu	42.6 dBu

			Before		After		
		BasePop	IX Change		IX Change		
Protected station		1000s	1000s	%Base	1000s	%Base	%Chng
N42 KTNC-TV LIC	CONCORD, CA	6,375	382	6.0	392	6.1	0.1
N42 KTNC-TV CP	CONCORD, CA	6,917	346	5.0	364	5.3	0.3
N40 KTXL LIC	SACRAMENTO, CA	3,666	85	2.3	85	2.3	0.0
N36 KICU-TV LIC	SAN JOSE, CA	5,280	101	1.9	101	1.9	0.0
N44 KBHK-TV LIC	SAN FRANCISCO, CA	5,054	49	1.0	49	1.0	0.0
N43 KGMC LIC	CLOVIS, CA	927	0	0.0	0	0.0	0.0
N43 KGMC CP	CLOVIS, CA	965	0	0.0	0	0.0	0.0
D43 KHSL-DT CP	CHICO, CA	570	172	30.2	172	30.2	0.0
D43 KHSLDT allot	CHICO, CA	570	-2	-0.4	8	1.4	1.8

Modified station parameters:

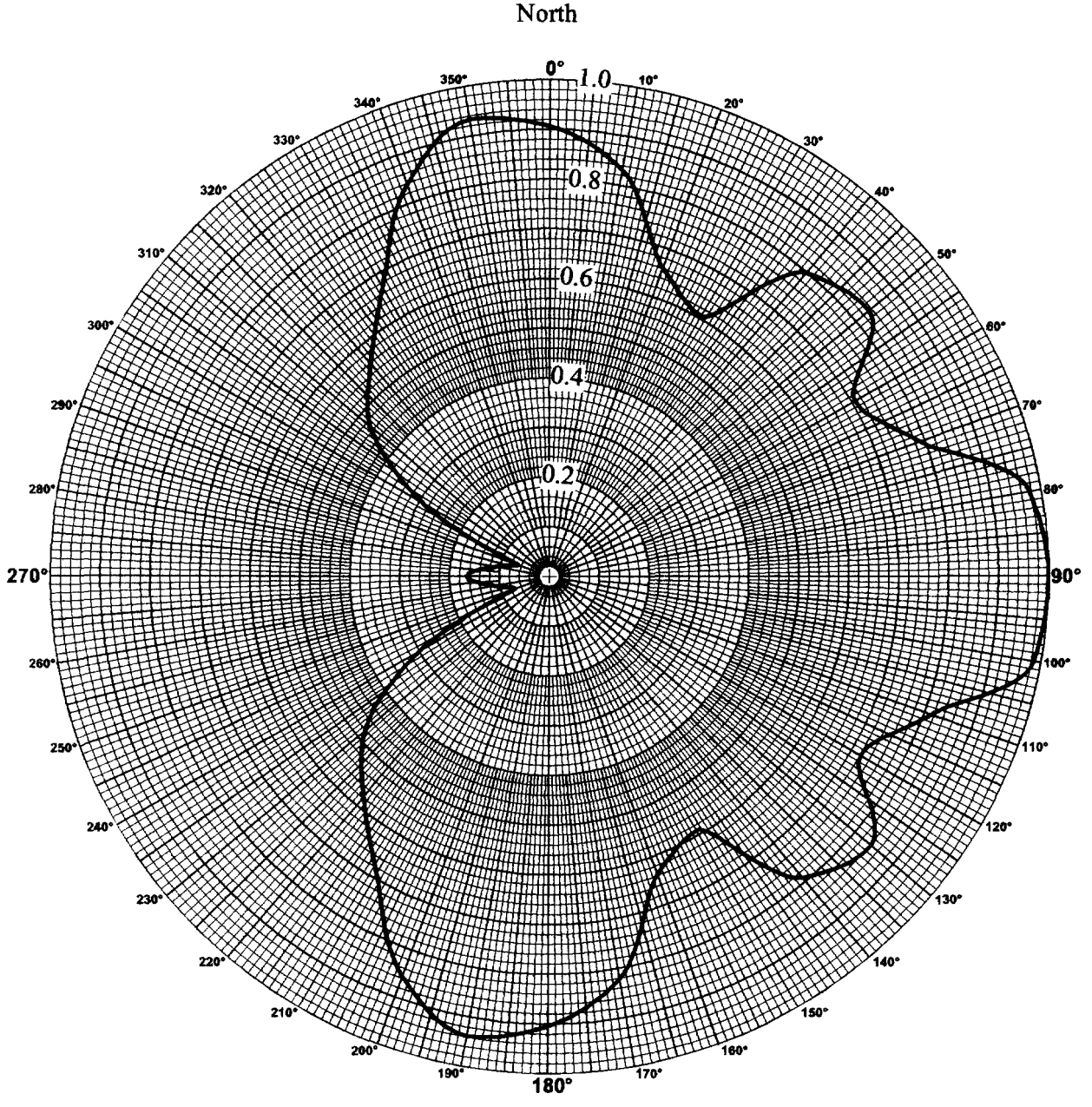
	--Modified--	--Original--
Station:	D10 KSBWDT allot	D43 KSBWDT allot
City:	SALINAS, CA	SALINAS, CA
Coordinates:	N 37-03-30.0	N 37-03-30.0
	W 121-46-33.0	W 121-46-33.0
Height AMSL:	1227.0 m	1227.0 m
Maximum ERP:	24.2 kW	449 kW
Azimuth pattern:	omnidirectional	DTV0178 (replication)
Orientation:		0.0
Elevation pattern:	OET-69 generic	OET-69 generic
Service level:	36.0 dBu	41.4 dBu

OET-69 Interference Study for KCSM-DT as D43

Note: The results of the OET-69 algorithm are dependent on the use of computer databases, including terrain, population, and FCC engineering records. FCC Rules Section 0.434(e) specifically disclaims the accuracy of its databases, recommending the use of primary data sources (i.e., paper documents), which is not practical for DTV interference analyses. Further, while Hammett & Edison, Inc. endeavors to follow official releases and established precedents on the matter, FCC policy on DTV analysis methods is constantly changing. Thus, the results of OET-69 interference and coverage studies are subject to change and may differ from FCC results.

Petition for Rulemaking • KCSM-DT as D43 • San Mateo, California

Proposed Directional Pattern
- Relative Field -



Note: Manufacturer's pattern for Channel D45.

Directional Antenna
Relative Field Tabulation

Azimuth	Relative Field	Azimuth	Relative Field
0°T	0.906	180°T	0.904
10	0.831	190	0.938
20	0.660	200	0.856
30	0.605	210	0.691
40	0.798	220	0.578
50	0.834	230	0.482
60	0.706	240	0.301
70	0.791	250	0.072
80	0.977	260	0.111
90	1.000	270	0.166
100	0.986	280	0.109
110	0.815	290	0.067
120	0.721	300	0.292
130	0.842	310	0.470
140	0.791	320	0.558
150	0.590	330	0.672
160	0.637	340	0.838
170	0.822	350	0.933

OET-69 Coverage Study for KCSM-DT as D43

Coverage analysis
tvcovstudy 2.3.11

This interference study is based on 1.00 x 1.00 kilometer cells and terrain profiles with 1.0 points per kilometer. FCC processing using these finer-resolution parameters is hereby requested, pursuant to the Commission's August 10, 1998, Public Notice, "Additional Applications Processing Guidelines for DTV."

Station parameters:

	--Modified--	--Original--
Station:	D43 KCSMDT allot	D59 KCSMDT allot
City:	SAN MATEO, CA	SAN MATEO, CA
Coordinates:	N 37-45-19.3	N 37-41-07.0
	W 122-27-06.1	W 122-26-01.0
Height AMSL:	477.3 m	423.0 m
Maximum ERP:	1000 kW	107 kW
Azimuth pattern:	kbhkD45az.pat	DTV0205 (replication)
Orientation:	0.0	0.0
Elevation pattern:	OET-69 generic	OET-69 generic
Service level:	41.4 dBu	42.6 dBu

		Total IX		Unique IX	
Interfering station		Area,km2	Population	Area,km2	Population
N42 KTNC-TV CP	CONCORD, CA	1487.6	341,960	406.2	173,441
N44 KBHK-TV LIC	SAN FRANCISCO, CA	0.0	0	0.0	0
N43 KGMC CP	CLOVIS, CA	546.6	86,913	25.7	4,971
D43 KHSLDT allot	CHICO, CA	1302.7	183,320	229.3	14,928

Service conditions	Area,km2	Population
Noise-limited service	19521.3	6,483,699
Terrain-limited service	14475.4	5,800,534
Interference-free service	12715.0	5,438,571
Longley-Rice errors	7770.0	1,370,915

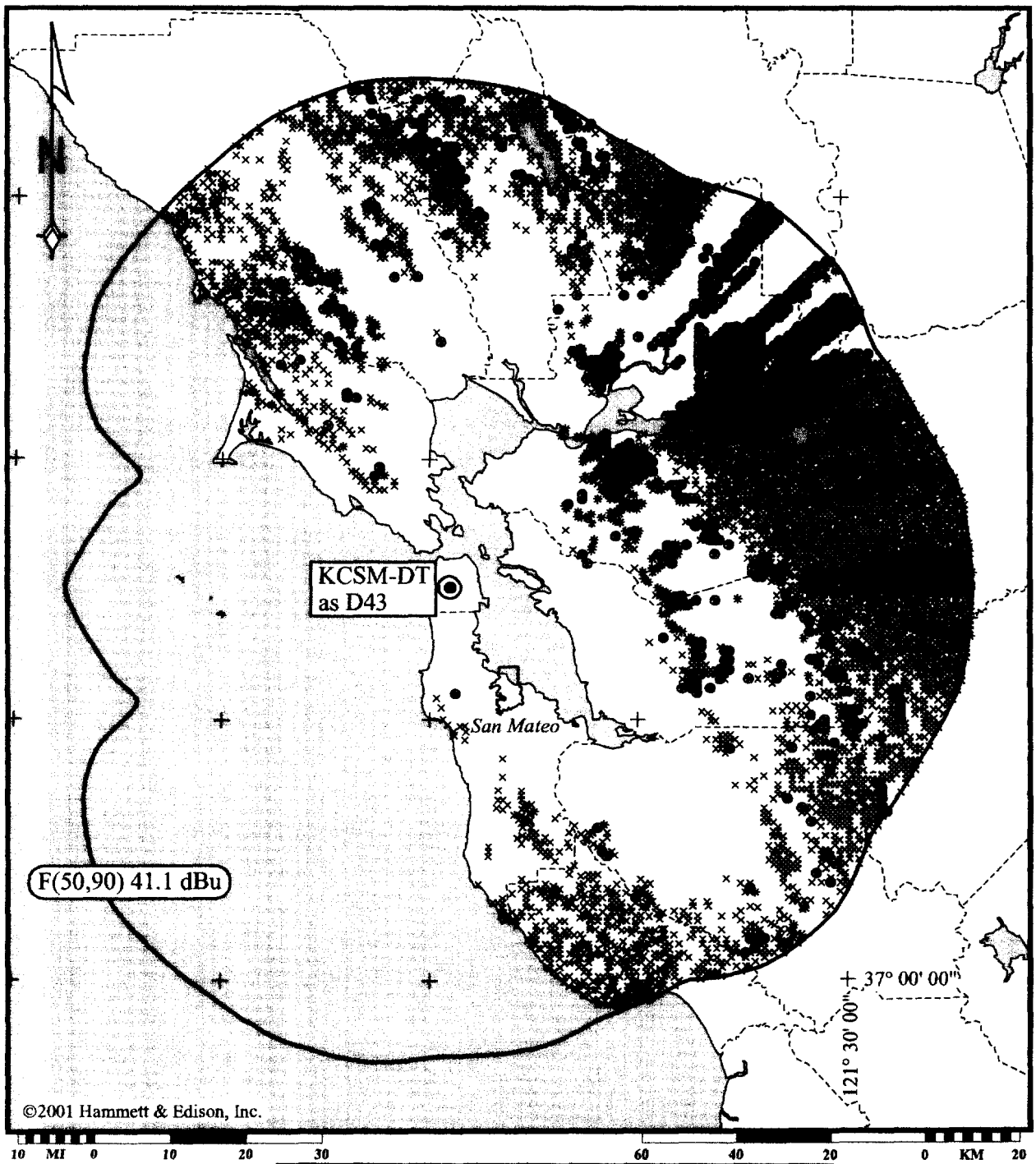
Modified station parameters:

	--Modified--	--Original--
Station:	D10 KSBWDT allot	D43 KSBWDT allot
City:	SALINAS, CA	SALINAS, CA
Coordinates:	N 37-03-30.0	N 37-03-30.0
	W 121-46-33.0	W 121-46-33.0
Height AMSL:	1227.0 m	1227.0 m
Maximum ERP:	24.2 kW	449 kW
Azimuth pattern:	omnidirectional	DTV0178 (replication)
Orientation:		0.0
Elevation pattern:	OET-69 generic	OET-69 generic
Service level:	36.0 dBu	41.4 dBu

OET-69 Coverage Study for KCSM-DT as D43

Note: The results of the OET-69 algorithm are dependent on the use of computer databases, including terrain, population, and FCC engineering records. FCC Rules Section 0.434(e) specifically disclaims the accuracy of its databases, recommending the use of primary data sources (i.e., paper documents), which is not practical for DTV interference analyses. Further, while Hammett & Edison, Inc. endeavors to follow official releases and established precedents on the matter, FCC policy on DTV analysis methods is constantly changing. Thus, the results of OET-69 interference and coverage studies are subject to change and may differ from FCC results.

OET-69 Coverage Map
1,000 kW ERP (DA) at 444.4 meters HAAT
Sutro Tower

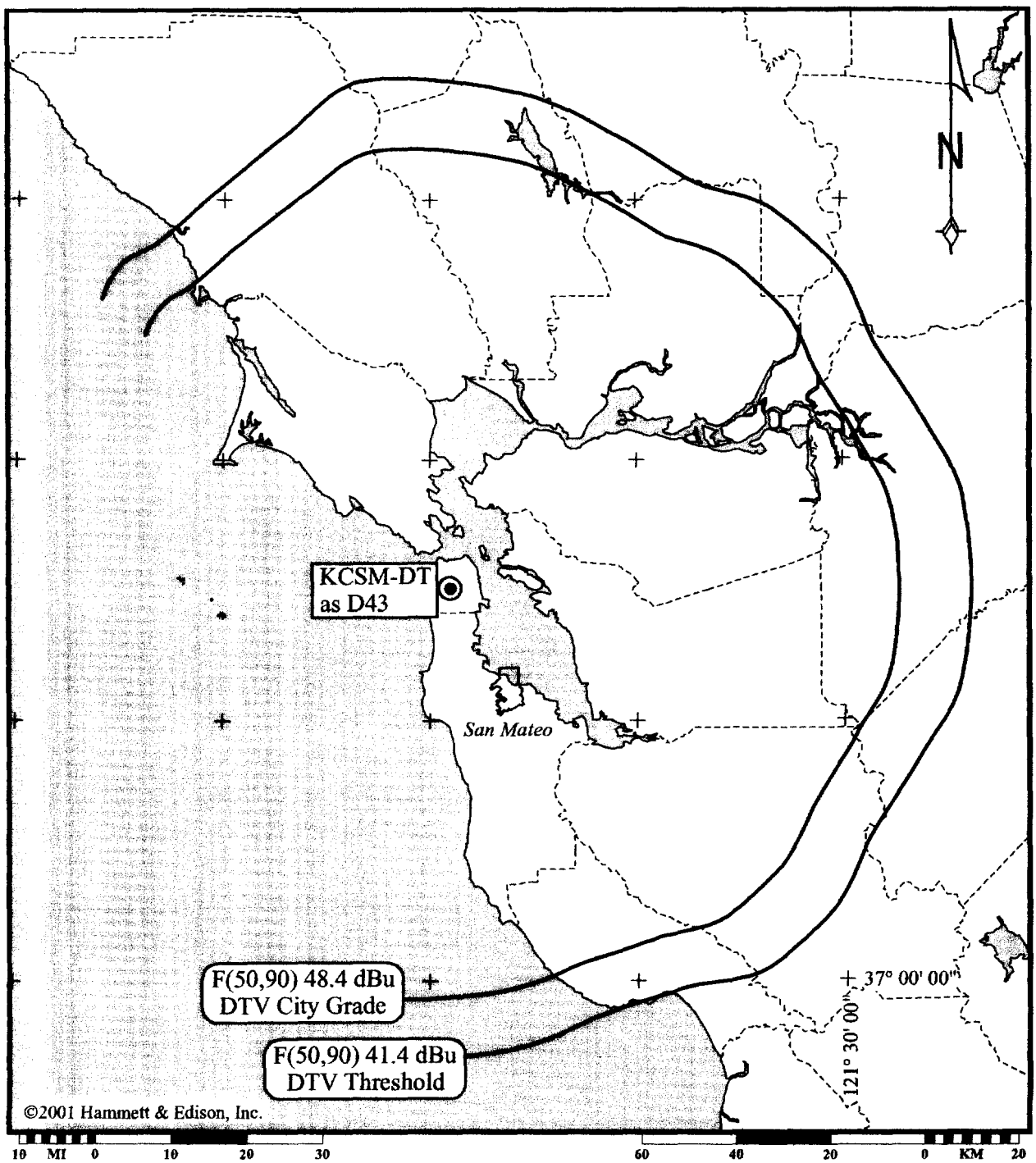


Map data taken from Sectional Aeronautical Charts, published by the National Ocean Survey. City limits shown taken from U.S. Census Bureau TIGER/Line 2000 data. Geographic coordinate marks shown at 30-minute increments.

× = No Signal (below threshold)
* = Interference (with population in cell)
● = Interference (without population in cell)

HAMMETT & EDISON, INC.
CONSULTING ENGINEERS
SAN FRANCISCO

FCC Contours for KCSM-DT as D43
1,000 kW ERP (DA), Sutro Tower
C.O.R. = 223.1 meters AGL, 477.3 meters AMSL, 444.4 meters HAAT



Map data taken from Sectional Aeronautical Charts, published by the National Ocean Survey. City limits shown taken from U.S. Census Bureau TIGER/Line 2000 data. Geographic coordinate marks shown at 30-minute increments.